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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,375	09/08/2003	Werner Heierli	027262-182-D1	9448

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EXAMINER
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CHAPMAN, JEANETTE E

ART UNIT	PAPER NUMBER
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3635

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/657,375	<b>Applicant(s)</b> HEIERLI, WERNER	
	<b>Examiner</b> Chapman E Jeanette	<b>Art Unit</b> 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 25-51 and 66-69 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 50,51 and 69 is/are allowed.
- 6) ☒ Claim(s) 25,27-30,34-41,45-47 and 66-68 is/are rejected.
- 7) ☒ Claim(s) 26,31-33,42-44,48 and 49 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 USC 102 that form the basis for the rejection under this section made in this office action.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

gc  
45, 47  
Claims 25, 37-39, 41, 46 and 68 are rejected under 35 U.S.C. 102(b) as being anticipated by Monachino (6408581). Monachino et al discloses a method of forming a hybrid arched overfilled bridge comprising:

- Defining a first pathway PL1; see annotations on patent copy;
- Defining a second pathway PL2 spaced above the first: see annotations on patent copy;
- Providing a plurality of precise side elements 32a;
- Erecting the precise side elements in two rows along the first pathway to extend toward the second pathway PL2;
- Casting in place a crown sector element between the two precast side elements to extend from one side element to the other so that the crown sector with the two side elements form a bridge;
- Forming a structural connection or shrinkage joints between/ in the crown sector and the two side elements; see figure 11;
- Figure 11 shows the crown sector with beveled edges

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- At some time and place the precast side elements were lifted and set in place in footings 34a;
- Casting in place one or more crown sector elements between two space apart rows of precast side elements such that the one or more crown sector elements connect at the two space apart rows of side elements to define a bridge over the first pathway;
- Multiple crown sector elements are cast in place and each crown sector element extends along the first pathway for a length that connects multiple precast side elements of each row.

**35 USC 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25, 29, 66-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shall et al (6205717) in view of Monachino. Shall et al discloses a method of forming a hybrid arched overfilled bridge comprising:

- Defining a first pathway PL1; see annotations on patent copy;
- Defining a second pathway PL2 spaced above the first: see annotations on patent copy;
- Providing a plurality of precast side elements 32a;

- Erecting the precise side elements in two rows along the first pathway to extend toward the second pathway PL2;
- Casting in place a crown sector 42 which has a form surface supported by a frame support or reinforcing elements 90;
- Figure 4 shows concrete that has been poured onto the crown sector form surface;
- Placing two footing strips 10 and 12 on each side of the pathway
- Placing overfill material atop at least a portion of the bridge;
- Casting in place one or more crown sector elements between <sup>two</sup> ~~two~~ space apart rows <sup>of</sup> ~~for~~ precast side elements such that the one or more crown sector elements connect at the two space apart rows of side elements to define a bridge over the first pathway;

Shall lacks casting in place a crown sector element between the two precast said elements to extend from one side element to the other so that the crown sector with the two side elements form a bridge. Monachino discloses a hybrid arched overfilled bridge system structure with two pathways and the crown sector between cast elements. It would have been obvious to one of ordinary skill in the art to modify shall to insert the crown sector as taught by Monachino in order to provide further support for the side elements while providing a structure that is simple to construct

Claims 27,30, 34-35,40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shall et al or Monachino in view of Olsen (4639345). Neither Shall et al or Monachino disclose providing a casting table with a form and pouring concrete mix into the form

surface of the casting table to form the cast side elements. It would have been obvious to fashion/configure the form in the shape that the block or cast elements would assume in order to construct the intended structure of a bridge or tunnel. See column 6, lines 1-25. One of ordinary skill in the art would have been motivated to employ a casting table with the intended shaped form and pouring the concrete in the form to form the elements of the bridge in with the intended shape as taught by Olsen. Olsen also discloses sealing the ends of the concrete form elements by element 16

Claims 28, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shall et al or Monachino in view of Olsen and further in view of Mingolla et al(4271555). Olsen discloses the work table with the forms and the concrete poured therein but lacks the moving form surface on the casting table. Mingolla et al discloses a casting table with form. The concrete mass is vibrated to remove entrapped air; the concrete mixture is therefore compacted. It would have been obvious to one of ordinary skill in the art to move the form surface on the casting table in order to remove trapped air in the concrete mass as taught by Mingollo.

Claims 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shall et al in view of Monachino in view of Davidson (2372187). Davidson discloses waterproofing his side elements and crown sector elements with laminations 22 and 17. it would have been obvious to waterproof these elements in order to weatherproof these elements taught by Davidson.

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***Allowable Subject Matter***

Claims 26,31-33,42-44,48-49 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 50-51 and 69 are allowable over the prior art of record.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 25 and 66 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language of ".....the crown sector overhangs the first pathway....." has no clear meaning. This language cannot be found in the specification.

***Response to Arguments***

Applicant's arguments filed 3/7/05 have been fully considered but they are not persuasive. Most of the arguments are moot given the new ground of rejection regarding 35 USC 112 problem stated above. The base reference shows a cast in place crown sector having a surface exposed to the first pathway.

***Conclusion***

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chapman E Jeanette whose telephone number is 571-272-6841. The examiner can normally be reached on Mon.-thursday, 8:30-6:00, every fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Friedman Carl can be reached on 571-272-6842. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jec

  
Jeanette Chapman  
Primary Examiner